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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the application of:

**Vitalij LISSOTSCHENKO and
Aleksei MIKHAILOV**

Serial No: **10/564,883**

Group Art Unit:

Filed : **January 17, 2006**

Examiner:

For : **BEAM FORMING DEVICE**

**SUBMISSION OF INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY**

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Applicant encloses a copy of the International Preliminary Report on Patentability (English translation). All claims (1-21) were deemed to be novel, have an inventive step and have Industrial Applicability.

Respectfully submitted,

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August 10, 2006

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Attorney's Docket: A-9835.SIPRP/cat

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference PT 04/234/WO	FOR FURTHER ACTION	See item 4 below
International application No. PCT/EP2004/008500	International filing date (<i>day/month/year</i>) 29 July 2004 (29.07.2004)	Priority date (<i>day/month/year</i>) 01 August 2003 (01.08.2003)
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237		
Applicant HENTZE-LISSOTSCHENKO PATENTVERWALTUNGS GMBH & CO KG		

1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).

2. This REPORT consists of a total of 6 sheets, including this cover sheet.

In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.

3. This report contains indications relating to the following items:

- | | | |
|-------------------------------------|--------------|---|
| <input checked="" type="checkbox"/> | Box No. I | Basis of the report |
| <input checked="" type="checkbox"/> | Box No. II | Priority |
| <input type="checkbox"/> | Box No. III | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability |
| <input type="checkbox"/> | Box No. IV | Lack of unity of invention |
| <input checked="" type="checkbox"/> | Box No. V | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/> | Box No. VI | Certain documents cited |
| <input type="checkbox"/> | Box No. VII | Certain defects in the international application |
| <input type="checkbox"/> | Box No. VIII | Certain observations on the international application |

4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Date of issuance of this report 03 July 2006 (03.07.2006)
Facsimile No. +41 22 338 82 70	Authorized officer <div style="text-align: center; font-weight: bold; font-size: 1.2em;">Ellen Moyse</div> e-mail: pt05@wipo.int

PATENT COOPERATION TREATY

Translation

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Applicant's or agent's file reference PT 04/234/WO		Date of mailing (day/month/year)
International application No. PCT/EP2004/008500		International filing date (day/month/year) 29.07.2004
International Patent Classification (IPC) or both national classification and IPC		Priority date (day/month/year) 01.08.2003
Applicant HENTZE-LISSOTSCHENKO PATENTVERWALTUNGS GMBH & CO KG		

1. This opinion contains indications relating to the following items:

<input checked="" type="checkbox"/>	Box No. I	Basis of the opinion
<input checked="" type="checkbox"/>	Box No. II	Priority
<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
<input type="checkbox"/>	Box No. IV	Lack of unity of invention
<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
<input type="checkbox"/>	Box No. VI	Certain documents cited
<input type="checkbox"/>	Box No. VII	Certain defects in the international application
<input type="checkbox"/>	Box No. VIII	Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/EP	Authorized officer
Facsimile No.	Telephone No.

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/EP2004/008500

Box No. I Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐

This opinion has been established on the basis of a translation from the original language into the following language

_____, which is the language of a translation furnished for the purposes of international search (under Rule 12.3 and 23.1(b)).

2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

- a. type of material

☐

a sequence listing

☐

table(s) related to the sequence listing

- b. format of material

☐

in written format

☐

in computer readable form

- c. time of filing/furnishing

☐

contained in the international application as filed.

☐

filed together with the international application in computer readable form.

☐

furnished subsequently to this Authority for the purposes of search.

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

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Box No. II

Priority

1. ☒ The following document has not yet been furnished:

☒ copy of the earlier application whose priority has been claimed (Rule 43bis.1 and 66.7(a)).

☐ translation of the earlier application whose priority has been claimed (Rule 43bis.1 and 66.7(b)).

Consequently it has not been possible to consider the validity of the priority claim. This opinion has nevertheless been established on the assumption that the relevant date in the claimed priority date.

2. ☐ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43bis.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.

3. Additional observations, if necessary:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/EP2004/008500

Box No. V	Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement		
1. Statement			
Novelty (N)	Claims	1-21	YES
	Claims		NO
Inventive step (IS)	Claims	1-21	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-21	YES
	Claims		NO
2. Citations and explanations:			
<p>1 Reference is made to the following documents:</p> <p>D1: EP-A-1 176 435 (ROHM CO LTD) 30 January 2002 (2002-01-30)</p> <p>D2: WO 98/10314 A (HENTZE JOACHIM; LISSOTSCHENKO VITALY (DE)) 12 March 1998 (1998-03-12)</p>			
<p>2 Document D1 (see figure 32b) is considered to be the prior art closest to the subject matter of claim 1. It discloses (the references between parentheses relate to this document):</p> <p>A method for producing an optical beam-forming device from at least two joined-together optically functional components.</p> <p>The subject matter of claim 1 differs from the known method for producing an optical beam-forming device in that the optionally functional components have cylindrical lens means.</p>			
<p>2.1 The subject matter of claim 1 is therefore novel (PCT Article 33 (2)).</p>			
<p>2.2 The problem addressed by the present invention can therefore be considered that of producing a beam-forming device with alternative optical properties at low cost.</p>			

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

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Box No. V

Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

2.3 The solution to this problem that is proposed in claim 1 of the present application involves an inventive step (PCT Article 33(3)) for the following reasons:

beam-forming devices with cylindrical lens means are known, see document D2 (figure 1). However, it would not be obvious to a person skilled in the art to compose such a device from two optically functional components.

Document D1 discloses a method for producing an optical beam-forming device from at least two joined-together optically functional components. However, there is no suggestion that, instead of the spherical or aspherical lens means that are used in D1 (paragraph [0108]), cylindrical lens means could also be used.

2.4 Claims 2-16 are dependent on claim 1 and therefore likewise meet the PCT requirements for novelty and inventive step.

3 The same reasoning correspondingly applies to the independent claim 17. The subject matter of claim 19 is therefore likewise novel (PCT Article 33(2)) and involves an inventive step (PCT Article 33(3)).

3.1 Claims 18-21 are dependent on claim 17 and therefore likewise meet the PCT requirements for novelty and inventive step.